

L34 ANSWER 1 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

DUPLICATE 1

2002-11189 BIOTECHDS

AN

TI

Detection of *Helicobacter pylori*

catalase activity in biological samples for diagnosis  
of *Helicobacter pylori* infection;

antibody and enzyme immobilization for bacterium disease

AU

PA

PI

AI

PRAI

DT

Patent

LA

OS

AB

Japanese

WPI: 2002-227351 [28]

DERWENT ABSTRACT:

NOVELTY - Diagnosis of *Helicobacter pylori* infection by measurement of catalase activity in digestive tract or feces specifically due to *Helicobacter pylori* catalase.

DETAILED DESCRIPTION - Diagnosis of *Helicobacter pylori* infection, comprising measurement of catalase activity in digestive tract or feces specifically due to *Helicobacter pylori* catalase. An INDEPENDENT CLAIM is included for kits for the diagnostic method.

BIOTECHNOLOGY - Preferred Method: The *Helicobacter pylori* catalase in the sample is separated from other catalases by ion-exchange or an immunochemical method. USE - The method is useful for simple and effective detection of infection by *Helicobacter pylori*.

EXAMPLE - Monoclonal antibody specific to *Helicobacter pylori* catalase was immobilized on a multiwell plate. A sample of feces (3g) was suspended in phosphate buffer (12 ml) and centrifuged at 4 degrees C/3000 rpm for 15 minutes. The supernatant (0.2 ml/well) was added to the plate. After one hour at room temperature the plate was washed and 5 mM hydrogen peroxide (0.2 ml/well) was added. After one hour at room temperature, oxygen evolution in the wells was measured using a Chemetrics K-7512 apparatus. Oxygen evolution of 8-12 parts per million (ppm) or more was shown by feces samples positive for the *Helicobacter catalase*, while samples negative for the *catalase* had oxygen evolution below 1 ppm. (18 pages)